

Notice of Allowability

Application No.

10/662,780

Examiner

Ly D. Pham

Applicant(s)

INUZUKA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 26 May 2005.
2. ☒ The allowed claim(s) is/are 1-4 and 13-15.
3. ☒ The drawings filed on 15 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 09-15-03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


HOAI HO
PRIMARY EXAMINER

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1 – 4 and 13 – 15 in the reply filed on May 26, 2005 is acknowledged.
2. Claims 5 – 12 and 16 – 21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse as indicated above.
3. This application is in condition for allowance, except the following formal matter.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- i. **Claims 5 – 12 and 16 – 21 are cancelled** for being drawn to non-elected inventions. Applicant has the right to file divisional applications on the subject matter covered by these claims.

ii. In **claim 16**, page 37, lines 6 – 7, ‘... **a** first command’ is replaced with ‘... **the** first command’, and ‘... **a** second command’ is replaced with ‘... **the** second command’. A first and a second commands have been introduced in the preamble.

Allowable Subject Matter

5. Claims 1 – 4 and 13 – 15 are allowed.

6. The following is an examiner’s statement of reasons for allowance:

The prior arts teach a synchronous semiconductor memory device and a testing method thereof, using the memory device, in which an operation of a row-system circuit is started in response to input of a first command and an operation of a column-system circuit is started in response to input of a second command. The method comprising:

inputting a first command; and

inputting a second command in a cycle next to the cycle in which the first command is input; and

making a screening test with respect to the activated memory cell.

However, the prior art did not teach the method for testing the synchronous semiconductor memory device, further comprising:

inputting an operation mode specifying signal which selectively specifies one of a normal operation mode and test mode, prior to the inputting of the first command and the second command;

synchronizing start timing of the operation of the row-system circuit with input timing of the second command when the test mode is specified by the operation mode specifying signal, and

activating at least part of memory cells in a memory cell array prior to making a screening test with respect to the activated memory cell.

The synchronous semiconductor memory device, which accompanies the testing method above, comprising:

a first circuit configured to generate a first signal for a normal operation mode based on a command detection signal which is activated in response to the first command;

a second circuit configured to receive the command detection signal, an operation mode specifying signal which selectively specifies one of the normal operation mode and test mode and a selection signal used to select at least part of the memory cells in a memory cell array and generate a second signal for a test mode to synchronize start timing of the operation of the row-system circuit with input timing of the second command; and

a third circuit configured to select the first signal output from the first circuit when the normal operation mode is specified by the operation mode specifying signal, select the second signal output from the second circuit when the test mode is specified, and generated a third signal used to activate at least part of the memory cells in the memory cell array based on the selected one of the first and second signals and the selection signal.

a first circuit configured to generate a first signal for a normal operation mode based on a command detection signal which is activated in response to the first command.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly D. Pham whose telephone number is 571-272-1793. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on 571-272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ly Pham 
June 8, 2005


HOAI HO
PRIMARY EXAMINER